

ADMINISTRATIVE

Approved For Release 2001/04/05 : CIA-RDP86-01019R000200020037-2

INTERNAL USE ONLY

7 JUL 1971

MEMORANDUM FOR: Chief, Printing Services Division, OL

SUBJECT : PSD's Contribution to Sewage Pollution
at Headquarters

1. STATEMENT OF THE PROBLEM

- a. Determine what chemicals or wastes the Printing Services Division produces in the operation of its printing and photographic facilities which could contribute to the pollution of our natural resources.
- b. Determine what the wastes are, in what quantities, where and how they are disposed of.
- c. Explore the need for any change in dumping procedures or whether some different method of handling/treatment may be desired (such as holding tank, aeration, chemical treatment, or any other method of handling the effluent) in order to alleviate any problem which may be found to exist.

2. FACTS BEARING ON THE PROBLEM

- a. The two areas related to PSD operations (printing and photographic) create effluent (or wastes) in several different categories, as indicated below:

(1) Printing:

- (a) Paper and paper trash, scrap film.
- (b) Metal (used lead, aluminum plates, stereotypes).
- (c) Chemicals (cleaners - liquid and dry; plate and press chemicals; photographic and engraving chemicals).
- (d) Air - ammonia (diaz); metal fumes; press dry spray.

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(2) Photographic:

(a) Scrap film and paper.

(b) Chemicals (acids; bleach; alcohol; cleaners - liquid and dry; photographic - color, black and white; diazo).

- b. All liquid wastes (or effluent) produced in the Printing Services Building are disposed of in a sewer system which becomes a part of the Headquarters system. The combined wastes are sent to the disposal plant located at Blue Plains via the Fairfax County Sewage System.
- c. Since the actual concentration of various waste products is directly dependent upon the amount of water which is combined with it, it is necessary to know the amount of water which is used (and combined with the wastes) by the Printing Services Building. Efforts to obtain this figure were fruitless because there is no measurement made of water going into, or disposed of, in the building.

3. DISCUSSION

- a. The waste product of the Printing Services Division can be roughly divided into two categories: solids and chemicals (liquid and dry).

(1) Solids

- (a) In the category of solid wastes would be items such as paper, paper trash and scrap film, all of which are generally disposed of by sending classified material to Agency facilities for either burning or "pulping," and unclassified solids (paper, wood, bottles, rags, etc.) are collected and disposed of by contract.
- (b) Other solid wastes which can be reconverted are: type metal, which is smelted at PSD using a refined flux which creates little air pollution; the dross being sent to a commercial processor for reuse; the metal being reused in PSD; aluminum plates are reduced to ingots in a cleared contract facility; and the small amount of zinc and magnesium from engravings are disposed of in an isolated Agency facility.

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- (c) The small amount of air pollution possibly created by anhydrous ammonia (diazo) and fumes from smelting type metal are negligible. The use of press "dry spray" has become sporadic and what little may be in the air is picked up by the ventilation system and removed by the system filters.
- (d) The above categories of waste materials produced by the Division in its operations do not appear to create a pollution problem in themselves.

(2) Chemicals

- (a) The disposal of chemicals (both liquid and dry) which are used by the printing and photographic operations are of primary concern because they could create potential disposal problems, dependent upon their concentrations.
 - (b) Certain liquid chemicals used (particularly in the printing operation) do not create an immediate disposal problem because they are absorbed in cleanup rags which are sent to a commercial laundry.
 - (c) The remaining chemicals which are disposed of are of a more serious nature because they have a pollution potential which could (under certain circumstances or concentrations) result in difficulty for the Blue Plains municipal authorities in the operation of their disposal facilities.
- b. Sewage treatment plants (such as Blue Plains) speed up the natural biological processes of purification from days to hours in most cases, using two types of treatment:

(1) Primary

This separates the solids from raw sewage by sedimentation and normally removes three quarters of the suspended solids and about one quarter of the oxygen from the wastes. It does not control dissolved organic wastes.

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(2) Secondary

This treatment is biological and uses cultured micro-organisms, bacteria, fungi, enzymes, etc., to break down the waste material.

When these two treatments are carried to completion in the presence of oxygen, the organic waste is biochemically oxidized and the end result is carbon dioxide and water; reducing pollution, generally, by about 80 to 95 per cent.

- c. The liquid wastes produced by PSD must necessarily be treated by the secondary treatment method. When the ratio of chemicals in these wastes becomes unusually large compared to the overall volume, this can create a treatment problem.
- d. The pollution potential of any particular chemical can be determined by the Biochemical Oxygen Demand (BOD) test which determines the amount of dissolved oxygen absorbed over a 5-day period. This is commonly referred to as the BOD₅ value of that particular chemical (or effluent).
- e. Municipal plants cannot treat highly toxic* chemicals, or chemicals that are non-biodegradable. These chemicals, if in concentrated quantities, pass directly through the plant, unchanged; thus creating a definite pollution problem in the stream into which they are discharged. Some of the most common non-biodegradable chemicals produced in an operation such as PSD's which could possibly constitute a primary concern to the treatment of effluent are:

Ferrocyanide
Silver

Phosphates
Boron

Ammonia
Zinc

* Toxic to the bacteria which works in the secondary system; that which cannot be oxidized to simple end products of carbon dioxide and water; and, if in great enough quantity, can destroy the bacteria necessary for secondary pollution control.

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f. Extent of PSD Pollution

- (1) A survey of all chemicals and possible pollution items was made to determine the extent of pollution which PSD produces. A 6-month issue base was used. This resulted in a total of 87 items. The items are listed in the annexes, as follows:

Annex A - All items used in the Main Plant for which the BOD₅ value was known (49 items).

Annex B - Items used in the Main Plant whose BOD₅ value is unknown (16 items).

Annex C - Items used in the PSD facilities located in the Headquarters Building only; no known BOD₅ value (6 items).

Annex D - Miscellaneous items used in all PSD facilities; no known BOD₅ value and no way of isolating the area of use (16 items).

- (2) Referring to the annexes, it will be shown that the various items were listed showing PSD stock number, name of item, unit of issue, area of primary use, how used, amount discharged in a 5-day period, the BOD₅ value (where known), the total BOD₅ value for the week, frequency of disposal, and how disposed of.
- (3) Of the 87 items listed, only 12 were shown to be used in their original state - not diluted. This points up the importance of knowing the amount of water which is eventually mixed with the overall total when being disposed of. Each item which was mixed shows the ratio of mixture to water; and this, of course, will be further diluted by the water flow through the building. (An unofficial water use estimate, made prior to building occupancy, was 400 gallons per minute, or 192,000 gallons per 8-hour day. This has never been verified.)
- (4) With the exception of 12 items, such as cleaners and washup items (liquid, hand, and grit), listed in Annex D the vendors of all other items in Annexes B, C and D were contacted and asked for information relative to the pollution (BOD₅) value of their products. To date, two (Capitol Printing Ink Co. and Fisher Scientific) have responded.

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- (5) Annex E is a listing of 47 chemicals used in the Division and the only toxicity information available is their listing as "Poison" or "Irritating" or both. Thirteen are listed as both; 26 are "Irritating" only; and 21 are "Poison" only.
- (6) The ideal method of estimating the possible pollution potential of the various chemicals would be to pinpoint the time of their disposal. Attempts were made to do this, but each chemical disposal was dependent upon the workload and type of work being done. Consequently, it was virtually impossible to state positively the time of disposal of any particular chemical. In lieu of this, it was decided to settle on a 5-day period of plant operation and base the amount of disposal on that period of time.
- (7) One of the non-biodegradable chemicals, silver, can be disregarded as a problem because PSD has an electrolytic silver recovery system in operation which processes all of its silver-bearing chemicals before disposal. The electrolytic recovery process is looked upon as the only really reliable process for removing the pollution caused by silver-bearing chemicals.

g. Agency participation

STATINTL

- (1) The Agency has initiated a contract with a private concern, [REDACTED] STATINTL [REDACTED] to perform a survey of the utilities systems of the Headquarters Building to update the present maintenance and services replacement program. The area's pollution potential will be a part of this survey.

STATINTL

- (2) The services of a sanitary engineer, Mr. George Williams, of the Environmental Protection Agency (EPA) of Charlottesville, Va., have been obtained to conduct a Federal Installation Effluent Survey of certain Agency facilities; the Printing Services Building being one.
- (3) Discussions with Messrs. [REDACTED] RE&CD/OL, liaison officers for the two projects, indicate that the chemical inventory in this study (Annexes A through E) would be of value to both of the surveys in progress.

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4. CONCLUSIONS

- a. This study has been hampered by an inability to:
 - (1) Specifically identify the various ingredients of all the chemicals used by the Division.
 - (2) Pinpoint "high" and "low" volumes in the disposals of the various chemicals used.
 - (3) Establish the water-usage rate in the Printing Services Building.
- b. It was possible to estimate a BOD₅ value of 49 of the total number of chemicals inventoried, but the BOD₅ or some other measure of pollution potential of the 38 remaining chemicals was not available for computation.
- c. Determining the actual extent of PSD's contribution to the overall pollution problem must be determined by a competent sanitary engineer.
- d. The study of pollution involved in operations such as PSD's is in its infancy and very few informative studies have been made to date. The Graphic Arts Technical Foundation has instituted several studies, primarily aimed at air and noise pollution, but very little on chemicals. Eastman Kodak has published some information on their particular chemicals (which has been used in this study); but this information did not cover all chemicals which PSD uses. It appears that many firms are concerned about proprietary interests and, until "pushed" by customers and the authorities, are not going to publish too much information in this field.

5. RECOMMENDATIONS

- a. The Printing Services Division should, of course, cooperate with the RE&CD and their contract sanitary engineers in all matters concerning PSD's part in any pollution studies. Copies of the chemical inventory in this study should be made available to them.
- b. Request Logistics Services Division to have some type of water-usage measuring device installed in the Printing Services Building.

OK/RECD should do this if needed

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Further inquiries should be made of our vendors concerning specific information on the potential pollution involved in the use of their products and, should these have unsatisfactory results, notify the vendor of PSD's intention to search for and use a suitable substitute product.

Set up a system for monitoring any possible pollution resulting from the use of new chemicals or by-products.

Continue to explore solutions to any possible pollution problem (especially Solvent Recovery Systems) which can, under certain conditions, effect some dollar savings in allowing for reuse of chemicals. This would entail continuous monitoring of all industry-related developments in the field of pollution.

The Division should appoint a competent individual to:

- (1) Act as liaison officer with RE&CD/OL and any other Agency offices working in the field of pollution control.
- (2) Be responsible for all vendor and supply contact in ecological matters.
- (3) Keep abreast and advise the Chief, Printing Services Division on all methods and equipment in the pollution control field.

STATINTL

Systems Staff, PSD/OL

Annexes:

A through E

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SENDER WILL CHECK CLASSIFICATION TOP AND BOTTOM			
UNCLASSIFIED	CONFIDENTIAL		
OFFICIAL ROUTING SLIP			
TO	NAME AND ADDRESS	DATE	INITIALS
1	Mr. [REDACTED] C/RECD/OL		
2	Rm 906 Ames Bldg		
3	[REDACTED]		
4	[REDACTED]		
5	[REDACTED]		
6			
ACTION		DIRECT REPLY	PREPARE REPLY
APPROVAL		DISPATCH	RECOMMENDATION
COMMENT		FILE	RETURN
CONCURRENCE		INFORMATION	SIGNATURE
Remarks: <i>Mal -</i> <i>Here is result of our study on what we're putting down our drains.</i> <i>We'll work with you in any further investigation. Plz advise if any action is required on our part.</i> [REDACTED] <i>will monitor</i> <i>for</i>			
FOLD HERE TO RETURN TO SENDER			
FROM: NAME, ADDRESS AND PHONE NO.			DATE
[REDACTED]			7/19
UNCLASSIFIED		CONFIDENTIAL	SECRET

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Basic information regarding potential pollution items used by PSD/OL

KNOWN BOD₅ VALUE

Page 1 of 3

PSD Stock No. /ITEM/ Unit of Issue	AREA OF USE	"AS IS" OR MIXED	AMT. DIS-CHARGED LBS./GALS. (Weekly)	BOD ₅		FREQUENCY OF DISPOSAL	HOW DISPOSED -- DILUTED-RATIO (Sewer)	REMARKS
				Unit Value	Discharge Total (Weekly)			
A-30+35 Acetic Acid	Chem. Mix	Mixed	14 lbs.	0.750	10.500	Intermittently	7:200 gal water	
D-925 Dev. DK-50 (EK) 3 1/2 gal.	Photo-Litho	Mixed	9.4 gal.	.037	.353	"	Powder & water to make 3 1/2 gal.	
D-935 Dev. D-76 (EK) 10 gal.	Deep Tank Photo.	Mixed	4.0 gal.	.050	.200	"	Powder & water to make 10 gal.	
D-940 Dev. D-85 (EK) 2 gal.	Litho	Mixed	1.0 gal.	.210	.210	"	Powder & water to make 2 gal.	Tray Developer
945 D-950 Dev. K-30 (EK) 5 gal.	Photon	Mixed	4.5 gal.	.090	.045	"	Powder & water to make 5 gal.	Developer & Replenisher
(EK) D-9?? Dev. MicrodolX, 1 gal.	3"x10" Photo	Mixed	.09 gal.	.090	.079	"	Powder & water to make 1 gal.	
(EK) D-955 Dev. Micrograph, 25 gal.	Microfilm - Photo	Mixed	41.5 gal.	.092	3.858	"	5:20 gal water	
D-960 Dev. Dektol (EK), 5 gal.	Litho	Mixed	1.35 gal.	.088	1.188	"	Powder & water to make 5 gal.	
D-965 Dev. Startone (Hunt) 50 gal.	Graphics Photo	Mixed	62.5 gal.	4.400/ 50 gal.	5.500	"	50:450 gal. water	
D-970 Dev. Reprodol (Ansco) 25 g.	Litho	Mixed	16.5 gal.	2.700/ 12 gal.	3.750	"	Powder & water to make 25 gal.	
D-975 Dev. Duomat (EK) 25 gal.	Graphics Photo	Mixed	44.0 gal.	.130/ 25 gal.	.229	"	Powder & water to make 25 gal.	
Hqs. D-980 Dev. CLDR A&B (DuPont) 10 g.	Special Printing	Mixed	4.23 gal.	6.200/ 20 gal.	5.590	"	"	Headquarters Building
Hqs. D-985 CLDR Repl. A&B for above	Special Printing	Mixed	11.80 gal.	6.200/ 20 gal.	4.720	"	"	Headquarters Building
D-990 Dev. Kodalith (EK) (Fine Line) 2 gal.	Litho	Mixed	.25 gal.	.210	.084	"	Powder & water to make 2 gal.	
D-995 Dev. Kodalith (EK) (Super) 10 gal.	Litho	Mixed	.25 gal.	.235	.094	"	Powder & water to make 10 gal.	
D-1000 Dev AP80A&B (Hunt) 6 gal. D-1005 Dev AP80 Repl for above	Litho	Mixed Mixed	62.50 gal.	6.700/ 20 gal.	20.900	"	6 gal A&B and water to make 14 gal.	Developer and Replenisher

Basic information regarding potential pollution items used by PSD/OL

KNOWN BOD₅ VALUE

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PSD Stock No./ITEM / Unit of Issue	AREA OF USE	"AS IS" OR MIXED	AMT. DIS-CHARGED LBS./GALS. (Weekly)	BOD ₅		FREQUENCY OF DISPOSAL	HOW DISPOSED -- DILUTED-RATIO (Sewer)	REMARKS
				Unit Value	Discharge Total (Weekly)			
D-1010 Dev. Starter (EK) Qt.	Graphics Photo.	Mixed	2.00 qts	--	--	--	--	Negligible
D-1015 Dev. Photostat (Hunt) 10 gal	Microfilm Photo.	Mixed	26.50 gal	1.00/15 gal	1.7600	Intermittently	1:7 gal. water	
D-1050 Dev. C-22 (EK) 3 1/2 gal	Color Photo.	Mixed	4.75 gal	.10/1 gal	.4750	"	Liquid & water to make 3 1/2 gal.	
D-1060 Bleach C-22 (EK) 3 1/2 gal	Color Photo.	Mixed	4.50 gal	.30/3.5 gal	.0360	"	Powder & water to make 3 1/2 gal.	
D-1065 Hardener C-22 (EK) 3 1/2 gal	Color Photo.	Mixed	4.50 gal	.23/3.5 gal	.2790	"	Liquid, powder & water to make 3 1/2 gal.	
D-1070 Stopbath C-22 (EK) 3 1/2 gal	Color Photo.	Mixed	4.75 gal	.38/3.5 gal	.5160	"	Liquid, powder & water to make 3 1/2 gal.	
D-1075 Dev. E-3 Color (EK) 3 1/2 g	Color Photo.	Mixed	6.75 gal	.13/1 gal	.2550	"	Liquid, powder & water to make 3 1/2 gal.	
D-1080 Dev. E-3 First (EK) 3 1/2 g	Color Photo.	Mixed	6.75 gal	.28/3.5 gal	.5410	"	Liquid, powder & water to make 3 1/2 gal.	
D-1083 Clearing Bath E-3 3 1/2 gal	Color Photo.	Mixed	5.75 gal	.08/3.5 gal	.1350	"	Powder & water to make 3 1/2 gal.	
D-1085 Bleach E-3 (EK) 3 1/2 gal	Color Photo.	Mixed	6.00 gal	.01/3.5 gal	.0170	"	Liquid, powder & water to make 3 1/2 gal.	
D-1090 Hardener E-3 (EK) 3 1/2 gal	Color Photo.	Mixed	5.75 gal	0	0	"	--	
D-1095 Stabilizer E-3 (EK) 3 1/2 gal	Color Photo.	Mixed	2.15 gal	.08/3.5 gal	.0492	"	Liquid & water to make 3 1/2 gal.	
D-1100 Dev E-4 Color (EK) 3 1/2 gal	Color Photo.	Mixed	NEGLIGIBLE			"	Powder & water to make 3 1/2 gal.	
D-1105 Dev E-4 First (EK) 3 1/2 gal	Color Photo	Mixed	NEGLIGIBLE			"	Liquid, powder & water to make 3 1/2 gal.	
D-1110 Bleach E-4 (EK) 3 1/2 gal	Color Photo	Mixed	NEGLIGIBLE			"	Liquid, powder & water to make 3 1/2 gal.	
D-1120 Neutralizer E-4 (EK) 3 1/2 g	Color Photo	Mixed	1.21 gal	.25/3.5 gal	.0715	"	Liquid, powder & water to make 3 1/2 gal.	

Basic information regarding potential pollution items used by PSD/OL

KNOWN BOD₅ VALUE

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PSD Stock No. /ITEM/ Unit of Issue	AREA OF USE	"AS IS" OR MIXED	AMT. DIS-CHARGED LBS./GALS. (Weekly)	BOD ₅		FREQUENCY OF DISPOSAL	HOW DISPOSED -- DILUTED-RATIO (Sewer)	REMARKS
				Unit Value	Discharge Total (Weekly)			
D-1125 Prehardener (EK) E-4, 3 1/2 g	Color Photo.	Mixed	2.420 gal	.700/ gal	1.700	Intermittently	Powder & water to make 3 1/2 gal.	
D-1130 Stop Bath (EK) E-4, 3 1/2 g	Color Photo.	Mixed	.675 gal	.670/ 3.5 gal	.160	"	Liquid, powder & water to make 3 1/2 gal.	
(EK) D-1140 Ektoprint "C" Dev. 25 gal	Color Photo.	Mixed	11.000 gal	6.050/ 25.0 gal	2.660	"	Liquid & water to make 25 gal.	
D-1145 Bleach (EK) 25 gal	Color Photo.	Mixed	11.500 gal	.035/ 3.5 gal	.135	"	Powder & water to make 25 gal.	
(EK) D-1150 Formalin Mixer 25 gal	Color Photo.	Mixed	11.000 gal	.770/ 3.5 gal	2.420	"	Liquid, powder & water to make 25 gal.	
D-1155 Stabilizer (EK) 25 gal	Color Photo.	Mixed	11.500 gal	.180/ 3.5 gal	.590	"	Liquid, powder & water to make 25 gal.	
Ektaprint "C" D-1160 Stop/Fix (EK) 25 gal	Color Photo.	Mixed	11.500 gal	1.050/ 3.5 gal	3.450	"	Liquid, powder & water to make 25 gal.	
Interneg D-1185 Dry/Repl (EK) 5 gal	Color Photo.	Mixed	1.250 gal	.550/ 5 gal	.138	"	Liquid, powder & water to make 5 gal.	
E-3, E-4, C-22 F-2350 Fixer (EK) 1 1/4 gal	Color Photo.	Mixed	.500 gal	6.600/ 30 gal	1.050	"	1:6 liquid to make 7 gal.	
F-2355 Fixer Himatic (EK) 50 gal	Graphics Photo.	Mixed	61.500 gal	1.000/ 35 gal	1.755	"	Powder & water to make 50 gal.	
F-2360 Himatic Stop (EK) 25 gal	Graphics Photo.	Mixed	69.500 gal	.500/ 25 gal	1.389	"	Powder & water to make 25 gal.	
F-2365 Fixer Liquid } F-2370 Hardener } 50 gal	Photo/Litho/Photon	Ratio 1:4	52.000 gal	6.600/ 30 gal	11.450	"	50:200 gal. water	
P-5070 Potassium Ferri 1 lb	Photo/Litho	Mixed	.500 lb	NEGLIGIBLE		"	NEGLIGIBLE	
S-6075 Sodium Sulphite 25 lb	Photo.	Mixed	4.800 lb	.120/ lb	.570	"	NEGLIGIBLE	
S-6080 Sodium Thiosulphate 100 lb	Photo.	Mixed	3.600 lb	.200/ lb	.720	"	NEGLIGIBLE	
TOTAL BOD ₅ DISCHARGED IN A 5-DAY PERIOD -----					89.622			

Basic information regarding potential pollution items used by PSD

UNKNOWN BOD₅ VALUE

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PSD Stock No. / (Vendor) ITEM/Unit of Issue	AREA OF USE	"AS IS" OR MIXED	AMT. DIS- CHARGED LBS./GALS. (Weekly)	BOD ₅		FREQUENCY OF DISPOSAL	HOW DISPOSED -- DILUTED-RATIO (Sewer)	REMARKS
				Unit Value	Discharge Total (Weekly)			
A-45 Citric Acid (N-S) 1 lb	Chem. Mix (D16 Dev)	Mixed	8.40 oz			Intermittently	5 oz/60 gal water	Cleans algae
A-50 Nitric Acid (N-S) 7 lb	Photo Engraving	Mixed	7.00 lb			Intermittently; Once weekly	1:5 ratio with water	Photo Engraving
A-55 Phosphoric Acid 80% (N-S)	Platemaking	Mixed	1.25 oz			Daily	1:16 ratio with water	Clean plate coater
A-60 Sulphuric Acid 9 lb (Military)	Chem. Mix	Mixed	4.10 lb			Intermittently	4.5 lb/25 gal water	System cleaner
A-125 Alcohol, Isopropyl 55 gal (903)	Press	Mixed	43.60 gal			Daily	1:2 with water	High evaporation rate
A-130 Alcohol, Ethyl 1 gal (EK)	Photo.	Mixed	--			Intermittently	--	High evaporation - No problem
B-160 Stop Bath P122 25 gal (Giant Foods)	Chem. Mix	Mixed	9.50 gal			Daily	--	--
B-175 Bleach, Clorox 1 gal	Photo.	Mixed	.80 gal			Intermittently	--	High dilution rate - For cleaning
C-670 Cleaner, Lestoil 1 gal (Lith-Kem Co.)	Press (all)	Mixed	1.60 gal			Daily	--	Press roller cleaner - High volume water
D-815 Desensitizer, Gum 30 gal (3M "R")	Press	Straight	1.10 gal			Daily	45 oz/60 gal water	Fountain Solutions
D-820 Desensitizer 1 qt (3M)	Plate & Plant #3	Mixed	1.30 gal			Daily	Washed off with water	1 1/2 gal - Plant No. 3 XX
D-825 Developer, Plate 1 pt (Wipe-on; Western Plate)	Plate & Plant #3	Mixed	1.00 pt	NEGLECTIBLE IN MAIN PLANT		--	Washed off with water	1 gal - Plant No. 3 XX
D-830 Developer, Plate 1 qt (Redi-Cote, Western)	Plate & Plant #3	Mixed	.50 gal			Daily	Washed off with water	1 gal - Plant No. 3 XX
D-835 Developer, Plate 1 pt (Asphaltum, Western)	Plate & Plant #3	Mixed	2.33 pt			Daily	Washed off with water	
D-840 Developer, Plate 1 qt (Gum 965, Polychrome)	Plate	Mixed	2.00 qt			Daily	Washed off with water	Plate preservative
D-860 Developer, Plate 1 gal	Plate	Mixed	1.20 qt			Daily	Washed off with water	Use dropping - same as above

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MISCELLANEOUS ITEMS INVOLVING VERY LITTLE
(OR NO) POLLUTION HAZARD

Basic information regarding potential pollution items used by PSD/OL

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PSD Stock No. / (Vendor) ITEM/Unit of Issue	AREA OF USE	"AS IS" OR MIXED	AMT. DIS- CHARGED LBS./GALS. (Weekly)	800/5		FREQUENCY OF DISPOSAL	HOW DISPOSED -- DILUTED-RATIO	REMARKS
				Unit Value	Discharge Total			
(North Strong) A-25 Acetone NF-17 1 gal	Press	Mixed	30 oz			Daily	Absorbed in rags with water	Cleaning press rollers
(George Keller) C-585 Cleaner, Putz can	General Printing	"as is"	9 cans/6 mo Negligible			Intermittently	Absorbed in rags	Paste metal cleaner
(Nu-Steel) C-595 Cleaner, Nu-Steel can	Photo.	"as is"	5 cans/6 mo Negligible			Intermittently	Absorbed in rags	Metal cleaner
(AM) C-625 Cleaner, AM Hand can	All	"as is"	3 1/2 cans			Daily	Sewer	Hand cleaner used w/water
C-630 Cleaner, MPD can	Press	"as is"	1+ cans			Daily	Sewer	Clean press rollers, used with water
(Mione) C-635 Cleaner, Hand, Grit 1 lb can	All	"as is"	14 cans			Daily	Sewer	Used to wash hands, with water
(Giant Foods) C-665 Cleaner, Scouring 1 lb can	All	"as is"	4 cans			Daily	Sewer	Used in general cleaning
(A. B. Dick) E-1430 Etch, No. 4-1030 qt	Spec Prtg - Press	Mixed	8 qt			Daily	Absorbed in rags	Press
(A. B. Dick) E-1435 Etch gal	Spec Prtg - Press	Mixed	+ 5 gal			Daily	Absorbed; 1:7 w/water	Press
(AM) E-1440 Etch, No. 40,2512, AA gal	General Prtg Plant	Mixed	6.6 qt			Daily	Absorbed; 1:7 w/water	Press
Anchor 95 gal	Press (all)	"as is"	4.6 gal			Daily	High evaporation; absorbed in rags	Press washup
(Taksit) Atlantic 49 gal	Press (all)	"as is"	10.4 gal			Daily	High evaporation; absorbed in rags	Press washup
(903) Blankrola, AM 5-gal can	Gen & Spec Prtg Plts	"as is"	2.6 gal			Daily	High evaporation; absorbed in rags	Press washup
Kerosene	Press (all)	"as is"	2 gal			Daily	Absorbed in rags	Press washup
(AM) Repelex gal	Gen & Spec Prtg Plts	Mixed	2.8 gal			Daily	High evaporation; absorbed in rags	Press
(Anchor) Film Kleen gal	All	"as is"	1.1 gal			Daily	High evaporation	Clean film

CHEMICAL MIXING ROOM

<u>Chemicals</u>	<u>Toxicity</u>	
	<u>Irritation</u>	<u>Poison</u>
E-4 Prehardener	X	X
Ektaprint "C" Developer/Replenisher	X	
Microdol X Developer	X	
C-22 Developer	X	
E-4 Color Developer	X	X
CP-5 Stop-Fixer	X	X
CP-5 Developer	X	
C-22 Stop Bath		X
C-22 Stop Bath - Part B		X
Duomat Developer	X	X
Starmat Type B	X	
Ektaprint "C" Formalin Fixer	X	X
E-3 First Developer	X	
DK-50 Developer	X	
DK-50 Replenisher	X	
E-4 Stop Bath	X	
E-4 Stop Bath - Part B		X
K-30 Developer	X	X
K-30 Developer - Part B		X
KR-30 Developer-Replenisher	X	X

<u>Chemicals</u>	<u>Toxicity</u>	
	<u>Irritation</u>	<u>Poison</u>
CP-5 Stabilizer	X	
Startone Developer	X	
Internegative Replenisher	X	
Anscochrome Processing Kit	X	X
Ektaprint "C" Stop/Fixer	X	
Sodium Hydroxide	X	X
Silver Nitrate		X
Acetic Acid Glacial	X	X
Sulfuric Acid 66° BE	X	X
Potassium Dichromate	X	
Cupric Sulfate		X
Cupric Sulfate - Part A		X
E-3 Color Developer	X	X
Elon	X	
Hydroquinone	X	
C-22 Hardener	X	X
Reprodol Developer	X	
D-11 Developer	X	
Dektol Developer	X	
D-19 Developer	X	
Kodalith Developer	X	

<u>Chemicals</u>	<u>Toxicity</u>	
	<u>Irritation</u>	<u>Poison</u>
Kodalith Super Developer	X	
Kodalith Fine Line Developer	X	
Graph-O-Stat Developer	X	
Micrograph Developer	X	
CP-5 Formalin Fixer		X
E-4 First Developer	X	